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# NOISE ELEMENT

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1988 General Plan

PLACENTIA



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At-Large	Robert E. Lamm
At-Large	James M. Jones
At-Large	James M. Jones

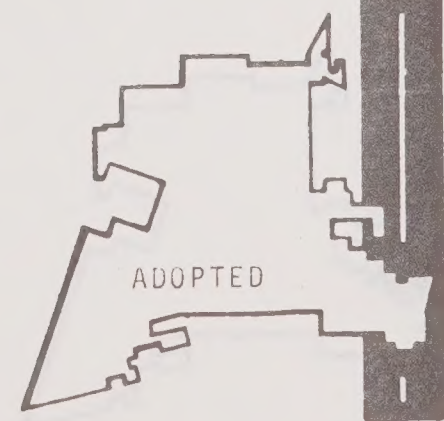
City Administrator	James M. Jones
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Planning Commission	Robert A. Lyons
Commissioner	James M. Jones
Commissioner	James M. Jones
Commissioner	James M. Jones
Commissioner	James M. Jones
Commissioner	James M. Jones
Commissioner	James M. Jones
Commissioner	James M. Jones

Planning Staff	James M. Jones
Director of Community Development	James M. Jones
Director of Planning	James M. Jones
Director of Planning	James M. Jones

ADOPTED August 9, 1978

NOISE ELEMENT OF THE GENERAL PLAN  
OF THE CITY OF PLACENTIA





## CITY COUNCIL

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ASSISTANT PLANNER . . . . .	BARRY K. HOGAN
PLANNER, GRAPHICS COORDINATOR . . . . .	JOYCE R. ROSENTHAL

ADOPTED AUGUST 6, 1974





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## DEFINITIONS

AMBIENT NOISE LEVEL means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources.

CUMULATIVE PERIOD means an additive period of time composed of individual time segments which may be continuous or interrupted.

DECIBEL (db) means a unit which denotes the ratio between two (2) quantities which are proportional to power; the number of decibels corresponding to the ratio of two (2) amounts of power is ten (10) times the logarithm to the base ten (10) of this ratio.

EMERGENCY MACHINERY, VEHICLE OR WORK shall mean any machinery, vehicle or work used, employed or performed in an effort to protect provide or restore safe conditions in the community or for the Citizenry, or work by private or public utilities when restoring utility service.

STATIONARY (FIXED) NOISE SOURCE means a stationary device which creates sounds while fixed or motionless, including but not limited to industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners and refrigeration equipment.

MOBILE NOISE SOURCE shall mean any noise source other than a fixed noise source.

NOISE LEVEL shall mean the "A" weighted sound pressure level in decibels obtained by using a sound level meter at slow response with a reference pressure of 20 micronewtons per square meter. The unit of measurement shall be designated as db(A).





# PURPOSE NOISE IDENTIFICATION

PLACENTIA





## PURPOSE

The Noise Element has been prepared pursuant to the State Guidelines for local general plans dated August 20, 1973. The guidelines were used to give direction and not necessarily followed verbatim.

To address the issues of noise as an element of the general plan, the City must do the following:

1. Noise identification
2. Collection of noise data
3. Policy formulation
4. Implementation

## NOISE IDENTIFICATION

The location of the City of Placentia poses few noise problems. The main noise generator is the railroad with the automobile being the secondary noise generator. Due to the fact that Placentia's industrial areas are relatively young, the extent of development, hence, noise, in this area is small. In a recent survey of Placentia's industrial area, staff has found no industrial noise polluters.

Placentia's main noise generator is the Atcheson, Topeka & Santa Fe Railroad. The railroad traverses the southern portion of the City from the east to the west. It is adjacent to not only industrial areas but to residential areas. The concern of the City is that future residential uses adjacent to the railroad should demonstrate adequate concern toward eliminating the noise problems that will develop upon the location of residences on the land.

The secondary noise generator in Placentia is the automobile on the streets. The City has five (5) classifications of streets:

- State highways
- major arterials
- primary arterials
- secondaries
- collectors





Staff has compiled a list of all of these streets. The only collectors listed are La Jolla and Melrose. These are listed because of their proximity to the industrial area. These streets pass through residential areas and connect to industrial areas. They carry both industrial and residential traffic.

The following streets have been listed as possible noise generators due to traffic:

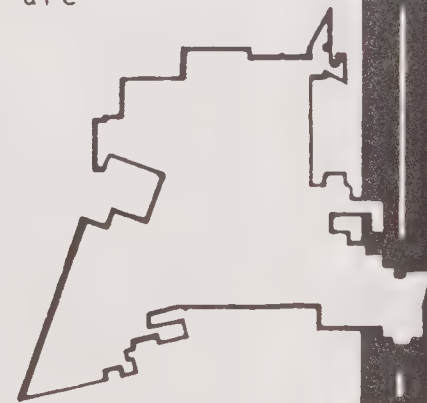
North/South

Placentia Avenue  
Orange Freeway  
Melrose Street  
Bradford Avenue  
Kraemer Boulevard  
Valencia Avenue  
Rose Drive  
Van Buren Street  
Richfield Road  
Lakeview Avenue

East/West

La Jolla Street  
Orangethorpe Avenue  
Crowther Avenue  
Chapman Avenue  
Alta Vista Street  
Buena Vista Avenue  
Madison Avenue  
Palm Drive  
Yorba Linda Boulevard  
Bastanchury Road  
Golden Avenue  
Imperial Highway

The reason these streets are chosen is because of the estimated traffic count done by the Engineering Division as of April 10, 1974, and because these streets are all of the arterials, primaries, secondary and collectors that would be the most frequently used streets in the City, all of the other streets in the City are interior to subdivision and are traveled infrequently.





# DATA COLLECTION

PLACENTIA





## COLLECTION OF NOISE DATE

The following data was gathered by staff in a number of field surveys at differing hours of the day. Since the daylight hours are those times during which the greatest volumes of traffic, hence, noise, are generated, there were no readings taken during the hours of darkness.

1. Railroad: The Atcheson, Topeka & Santa Fe Railroad is a freight operation and has no set schedule. Information has been obtained indirectly by staff from the Chief Dispatcher's Office through Placentia's Director of Commercial/Industrial Resources, that no set schedule exists for arrivals and departures. In any twenty-four (24) hour period, approximately forty (40) trains will pass through the City. This is an average of one and one-half (1 1/2) trains every hour. (See Figure 1)
2. Freeways: At the present time, the Orange Freeway has not been completed. Upon completion of the freeway, sometime in 1975 according to the Department of Transportation, the generations of noise should increase as traffic increases.

The Department of Transportation has taken readings along the right-of-way of the Orange Freeway. They vary from 80 db(a) at the edge of the right-of-way to 60 db(a) at 600 feet from the right-of-way. (See Figure 2)

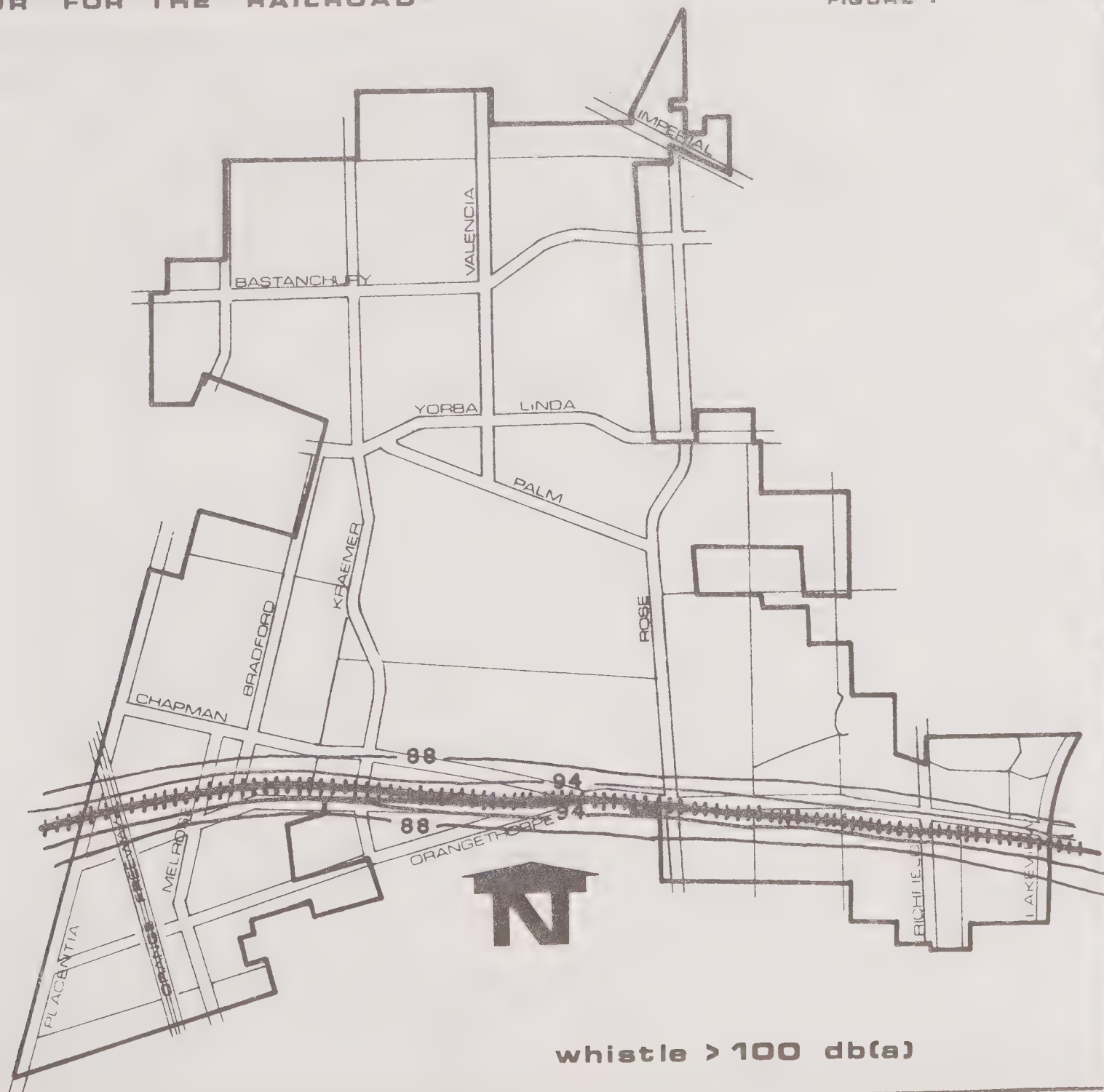
3. Roads (arterial, primary, secondary): Staff has taken noise readings at all intersections of arterial, primary and secondary roads so that noise contours can be plotted on a map depicting the noise generations from these roads. (See Figure 3)
4. Stationary Noise: Because of the relative newness of the City's industrial and commercial areas, there are no industrial and commercial noise polluters. The industrial and commercial developments that the City has are clean industry and commerce.





# NOISE CONTOUR FOR THE RAILROAD

FIGURE 1

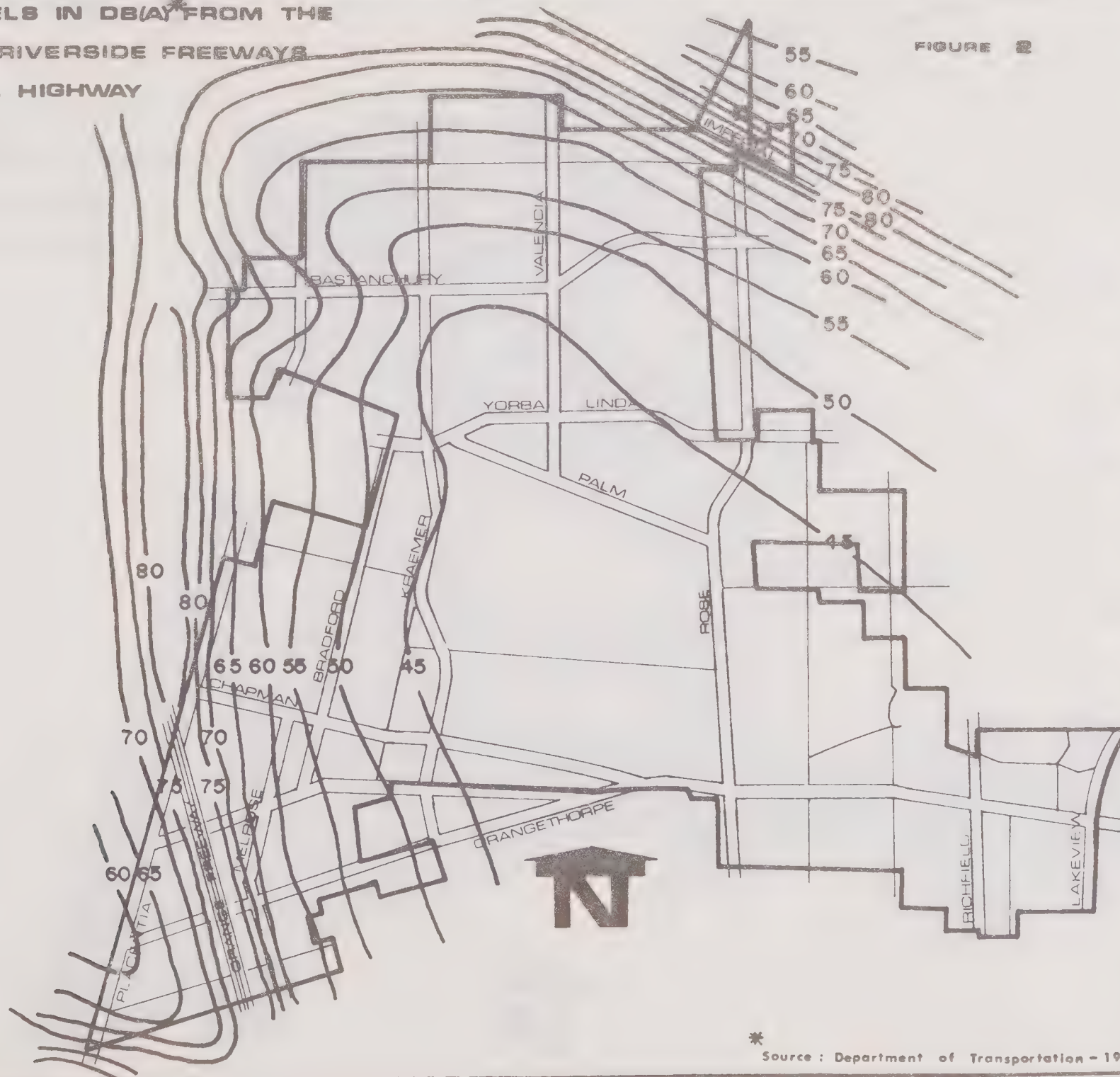


PLACENTIA



**NOISE LEVELS IN DB(A)\* FROM THE  
ORANGE & RIVERSIDE FREEWAYS  
& IMPERIAL HIGHWAY**

FIGURE 2

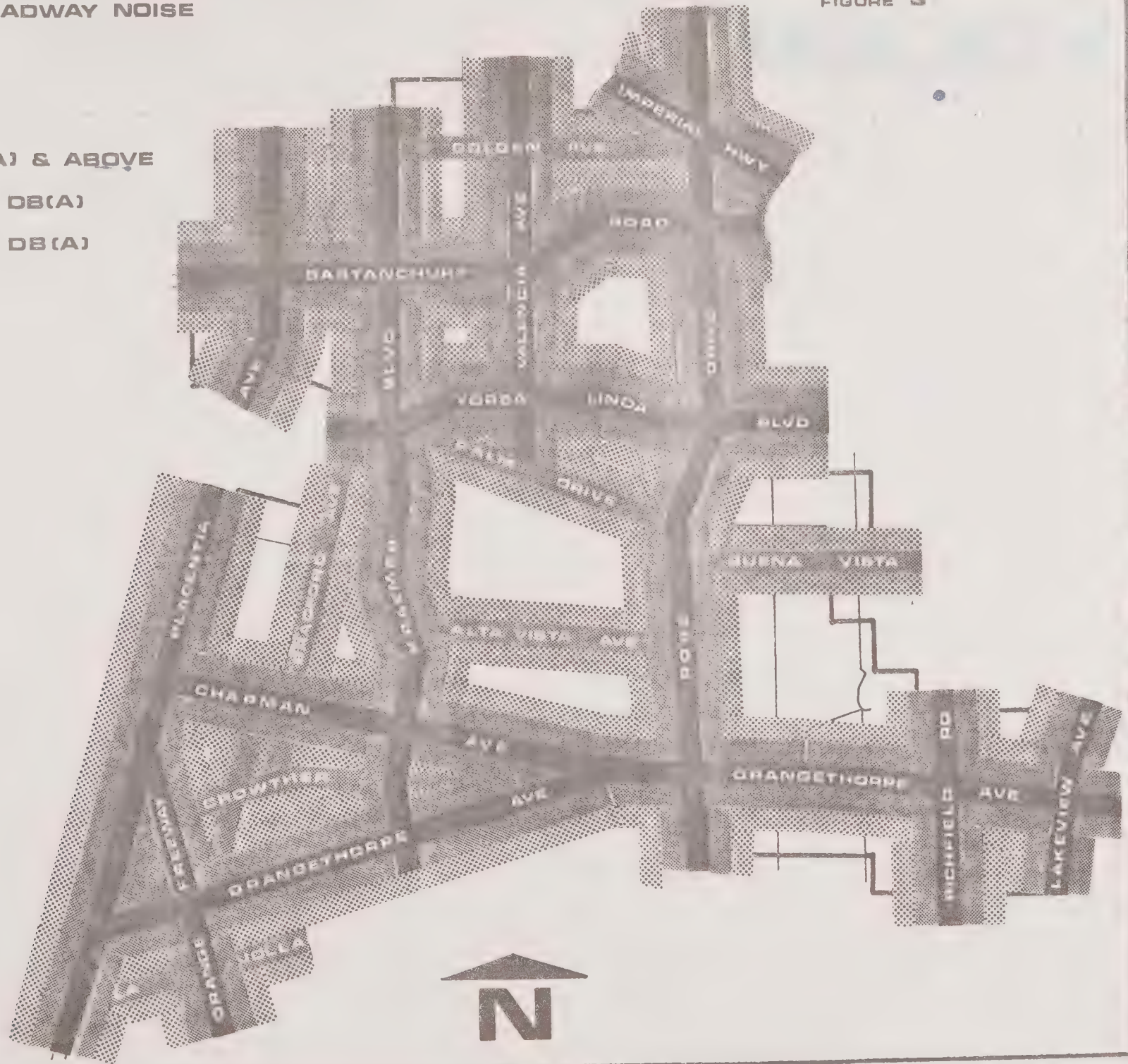


\* Source : Department of Transportation - 1974

PLACENTIA



## FIGURE 5



# PLACENTIA



**POLICY**

**PLACENTIA**





## POLICY FORMULATION

Objective: To provide an environment where mobile or stationary noise generators are not harmful to the health, safety and welfare of the residents of the City of Placentia and the natural environment.

### Principles:

1. Create noise standards in separate ordinance or combined with existing ordinances.
2. Create maximum noise level standards maintained interior and exterior to all developments.
3. Provide a periodic review of City-wide noise data to update the ambient noise levels.
4. Maintain a continuous preventive program for the containment of noise generators.
5. Support Federal, State and County programs for the reduction, containment and elimination of noise generators, both mobile and stationary.

### Standards:

1. There shall be three (3) standards of acceptability. They are:
  - A. Clearly Acceptable - the noise exposure that is such that both the indoor and outdoor environments are pleasant.
  - B. Discretionary -
    - 1) Normally Acceptable - the noise exposure is great enough to be of some concern but common building constructions will make the indoor environment acceptable, even for sleeping quarters, and the outdoor environment will be reasonably pleasant and not impair hearing.





- 2) Normally Unacceptable - the noise exposure is significantly more severe so that unusual and costly building constructions are necessary to insure some tranquility indoors, and barriers must be erected between the site and prominent noise sources to make the outdoor environment tolerable and not harmful enough to impair hearing.
- C. Clearly Unacceptable - the noise exposure at the site is so severe that persistent noise impairs hearing and the outdoor environment would be intolerable.
2. The maximum ambient noise base level, clearly acceptable, in a residential district shall be 45 db(a) when read in any inhabitable room and shall not exceed 55 db(a) at the property line for a cumulative period of more than 15 minutes in any hour.
  3. The maximum ambient noise base level, clearly acceptable, in a residential district adjacent to a commercial or industrial district shall be 45 db(a) when read in any inhabitable room and shall not exceed 60 db(a) at the property line for a cumulative period of more than 15 minutes in any hour.
  4. The maximum ambient noise base level, clearly acceptable, in a commercial district shall not exceed 60 db(a) at the property line for a cumulative period of more than 15 minutes in any hour.
  5. The maximum ambient noise base level, clearly acceptable, in an industrial district shall not exceed 70 db(a) at the property line for a cumulative period of more than 15 minutes in any hour.
  6. Exceptions in the standards shall be made for construction. In no case shall there be construction or operation of construction equipment from 6:00 p.m. to 7:00 a.m. In no case shall the ambient noise level, in any district, be over 75 db(a) for a cumulative period of one (1) hour during the allowable time period.
  7. Maximum noise levels shall never exceed 110 db(a).



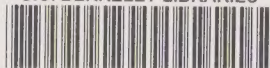


## IMPLEMENTATION

To effectively implement a program of noise prevention, the City may initiate action to incorporate specific noise quality standards for each zoning district or the City may draft a noise ordinance pursuant to the adopted objectives, principles and standards.



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IMPLEMENTATION

To effectively implement a program of noise prevention, the City may initiate action to enforce the specific noise standards for each zoning district or the City may draft a noise ordinance pursuant to the adopted standards, principles and standards.





